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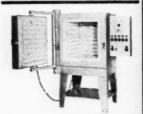
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CERAMICS MONTHLY



VOLUME 9, NUMBER 10

DECEMBER .

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ON OUR COVER: The Virgin Mary and Christ Child, from the workshop of Andrea della Robbia (1480-90), is presented as our Holiday Greeting to potters everywhere. This superb example of Italian ceramic work is 40 inches in diameter. The heads, badies and wings in the central panel are unglazed, revealing the terra cotta color of the clay; the background is the traditional della Robbia blue glaze and the halos are white. The cherub border is blue and white, and the fruit border is green, raisin, lavender, mustard and green. Photo: Courtesy of the Seattle Art Museum.

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GLAZE SOURCE

If possible I should appreciate so very much receiving a formula for a low-fire majolica glaze such as referred to in Mr. Marc Bellaire's article (October 1961 issue) on Delft Ware, for I have long been interested in said method of decoration.

> HELEN CONNALLY Deland, Florida

Any ceramic supply shop should be able to furnish you with a low-fire opaque white glaze that will not flow during the firing. This is what Mr. Bellaire used for his demonstration. If you wish to make your own glaze, nearly all standard ceramic books that include glaze recipes include a formula for a majolica glaze. Ed.

MARTZ, BLACK AND WOOD

I have received my September and October issues of CERAMICS MONTHLYbut both of them have great holes in them -caused by the missing Karl Martz articles. I am not the only one who feels the great loss. Surely we are not going to be deprived of his fine earthenware articles? Harding Black's article on glaze ("Lava Glazes." October 61) makes me "itch" to try this, having greatly admired those California pots with this lava-type glaze. But this brings up a need I have felt before. Could CERAMICS MONTHLY give a full article (not just a paragraph) on reduction firing at eathenware temperatures in an electric kiln?

Don Wood is back and I am glad! Probably the best thing about his articles is the fact that without molds or a wheel he teaches you to make excellent pots. And I have said it before, but it bears repeating: the photos and text in CERAMICS Monthly's articles are without a peer. Nothing, short of a classroom plus an excellent teacher, compares with them.

I feel (about Picture Parade) as I have about the Show Time articles, that since many of us do not have the museums, etc., easily available, these photos are the next best thing. Eventually some of the best of this information will rub off on us. It should prove particularly effective with students.

MRS. MARTHA S. HODGES Williamsport, Penna.

VIA KATHE BERL

I love CERAMICS MONTHLY which started me off (via Kathe Berl) on an enameling bent. I studied with Shirley Schwartz in River Edge, N. J.; she does extremely beautiful work. Since silversmithing is something allied to enameling, I am surprised you don't have articles on the subject.

I used to teach ceramics here in Leonia at the Anna C. Scott School, which was an extracurricular activity for the kids of Leonia and which took place on Saturday mornings.

Be sure to let me know when my subscription is about to lapse-I want to renew for I would surely be lost without it. TEAN BEAL

Leonia, N. J.

CERAMICS MONTHLY INVALUABLE

My congratulations on your very excellent magazine. I find it invaluable.

CYNTHIA S. BAKER Loveland, O.

USES NATIVE CLAYS

I have been teaching for three years in the Philippines and find it very easy to use the native clays. In fact, we dig it from the school campus. I have enjoyed CERAMICS MONTHLY and hope to make some of the things such as the yard torches and grilles.

MRS. THELMA M. HYET Brent School Baguio City, Philippines

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WHERE TO SHOW

MICHIGAN, DETROIT January 30—February 25

Michigan Artist-Craftsmen Annual Exhibition, to be held at the Detroit Institute of Arts, is open to residents of Michigan. Media: ceramics and other crafts. No fee; jury; prizes. Entry cards and work due January 6. For information and entry blanks, write: Mr. A. F. Page. Detroit Institute of Arts. 5200 Woodward Ave., Detroit 2.

MICHIGAN, KALAMAZOO

March 4—April 30 The Midwest Designer-Craftsmen and the Kalamazoo Art Center are sponsoring an exhibition open to craftsmen residing or working in the following eleven states: Ohio, Indiana, Michigan, Illinois, Missouri, Iowa, Wisconsin, Minnesota, North Dakota, South Dakota and Nebraska. Clay, Fibre, Metal or Glass. Cash awards and five one-man show awards. Juried, Entry blanks and fee due January 8, 1962. Write: Kalamazoo Art Center, 509 Jasper St., Kalamazoo, Michigan.

OHIO, COLUMBUS March 2—April 2

Designer-Craftsmen of Ohio, a competitive exhibition open to craftsmen working in Ohio, is sponsored by the Beaux Arts Club and the Columbus Gallery of Arts. All media: Prizes totaling \$1,200. Juror: David Campbell. Entry forms due by February 1, 1962. For information and entry blanks, write: Mrs. Charles Browne, Columbus Gallery of Fine Arts, Columbus 15.

OHIO, YOUNGSTOWN

January 1—February 25
Fourteenth Annual Ohio Ceramics and Sculpture Show, sponsored by the But-ler Institute of American Art, is open to present and former residents of Ohio. Media: Ceramics, sculpture, enamel and jewelry. Over \$750 in prizes. Jury; \$2 Entry Fee. Entry blanks and work due Dec. 15, 1961. Write: Secretary. Butler Institute of American Art, 524 Wick Ave., Youngstown 2.

WHERE TO GO

CALIFORNIA, SAN FRANCISCO through December 17 "Art Treasures of Thailand," at the Cali-

fornia Palace of the Legion of Honor.

ILLINOIS, CHICAGO through December 17

"Japanese Decorative Style," an exhibit organized by the Cleveland Museum of Art, at the Chicago Art Institute.

ILLINOIS, CHICAGO

through January 7 Enamels by Kenneth Bates of Cleveland, Ohio, at the Art Institute of Chicago.

INDIANA, GREENCASTLE through December 19

Third DePauw Ceramic Show includes work by Indiana Artists in pottery, ceramic sculpture, metal enameling and mosaic. At the DePauw Art Center. INDIANA, SOUTH BEND

December 3-24 Ceramics by Richard Peeler, instructor in ceramic art at DePauw University, at the South Bend Art Center.

MARYLAND, BALTIMORE

through December 16 Third Annual Christmas Show of the Potter's Guild of Baltimore.

MICHIGAN, FLINT

through December 17
"21st Ceramic National Exhibition," circulated by the Everson Museum of Art, at the Flint Institute of Arts.

NEW HAMPSHIRE, MANCHESTER through December 10

Fifteenth Annual Exhibition of the New Hampshire Art Association, at the Currier Gallery of Art.

NEW YORK, NEW YORK

through January 14 Pottery of Toshiko Takaezu and Sand Castings by Jarl Hesselbarth will be on display in addition to the major exhibition of Fabrics International at the Museum of Contemporary Crafts.

NEW YORK, NEW YORK

through December 31 "Art and Life in Old Peru" features many rare treasures, including ceramics, from both Peruvian and American collections. At the American Museum of Natural History.

NEW YORK, NEW YORK

Continuing "Ancient Works of Art" includes Persian pottery and sculpture, at the H. D. Motamed Galleries, 58 East 79th St.

NEW YORK, SYRACUSE

through December 15 "Enamels," Smithsonian Institution Traveling Exhibition, at the Lowe Art Cen-

NEW YORK, SYRACUSE

December 16—January 21
"Modern Mosaics of Ravenna," circulated by The American Federation of Arts, at the Everson Museum of Art.

NEW YORK, UTICA through January 31

"Japan: Design Today," Smithsonian Traveling Exhibit, at the Munson-Williams-Proctor Institute.

PENNSYLVANIA, PHILADELPHIA through December 31 Christmas Crafts Exhibition, at the Phil-

adelphia Art Alliance.

PENNSYLVANIA, PHILADELPHIA

December 6—January 7 Mosaics, Sculpture and Paintings by Laura Goodman, at the Philadelphia Art Alliance.

WASHINGTON, SEATTLE

through December 3 47th Annual Exhibition of Northwest Artists, at the Seattle Art Museum.

WISCONSIN, MILWAUKEE

through December 10 The 41st Annual Exhibition of Wisconsin Crafts, at the Milwaukee Art Center.



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Suggestions from our readers

Plastic Spray Booth

You can make a glazing booth from a discarded plastic garment storage bag. I used the type that holds about 12 garments and suspended it on hooks over my pottery table. I cut the zipper off before I thought of using it, but it would be handy for closing the bag when not in use. Glaze sweepings are easily collected off the sides and bottom of this bag.

-Ruth Emery, Toronto, Ontario

Hi Fi Banding Wheel

I do not have an electric banding wheel, so whenever I want to do an especially careful banding or striping job I put the piece on our hi-fi turntable, center it and turn it on! I use the 16 r.p.m. speed, which gives a slow and constant speed. It does the job very, very well.

—Barbara Cory, Glencoe, Ill.

Indian Beads for Design

To accent any design with an economical and easy glass effect, I have tried the following procedure with good results: On greenware I carve out the design I want to be filled with glass. After it is bisque fired, I give the entire piece one coat of clear glaze. On the second coat of glaze I omit glaze on the design area. When the piece is dry, I then flow the second coat of glaze into the design area, a little at a time, and while it is still wet I lightly scatter in Indian beads or glass beads (the

small beads such as used in making bead belts). Do not use too many beads or, when they melt, they will flow over the edges of the design. The wet glaze makes these beads stick in the area of the design and they will not roll around. These beads melt and puddle very nicely and give a wonderful contrast to any background. The designs can be enhanced with gold or platinum decorations at a later firing. This is a very economical way of making a glass design, as these beads can be purchased in single or mixed colors. The glass beads are shiny when melted and the Indian beads are of a duller finish. This last Christmas I made over a dozen "Christmas Tree" plates using this method with beads.

—Mr. George Reeder, Jr., South Haven, Mich.

Drill for Small Holes

If the man of the house has an old drill bit around, put a drawer knob on the shank end and it makes a handy tool for drilling holes in greenware.

-Dora Willard, Royal Oak, Mich.

Dollars for your Thoughts

\$ CM pays up to \$5 for each item used in this column. Send your bright ideas to CM, 4175 N. High St., Columbus 14, O. Sorry, but we can't acknowledge or return unused items.

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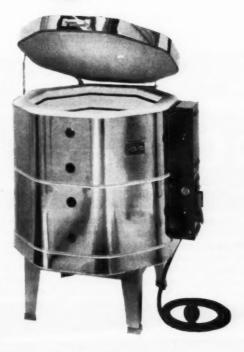
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Conducted by the CM Technical Staff

Is there anything I can do to remedy a piece when a bubble appears in my enamel?—N.H.H., Oshkosh, Wis.

Kathe Berl suggests that if you have a large group of these blisters or bubbles, grind them down with a Carborundum stone, then rinse, fire, cover with another coating of enamel and then refire. If you have a single blister, try firing the piece a little longer. The blister may melt and heal over. If there is any danger of overfiring, prick the bubble open with a pointed tool and fill the hole with a few grains of the same enamel. Do this with a pointed tool and not with a brush; dry and refire.

I have started (in a very modest way) to try making some glazes from recipes published in your magazine and some of the ceramic books I've purchased. Some of these glazes seem to settle in the bottoms of the containers and get quite hard. In fact, a few are quite impossible to stir up again. I haven't as yet figured out which materials cause this, and wonder if you can help on this problem. Is there anything I can add to glazes to prevent this settling?—Mrs. J. L., Ft. Lauderdale, Fla.

Glazes containing raw alkalines tend to settle and harden: some frits also do this. A small amount of epsom salts can be added to the water when you are preparing the glaze, and this should help prevent the trouble. Some potters add one per cent of bentonite to the dry materials; when the glaze is made up, this plastic volcanic clay helps keep the heavy particles in suspension.

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Brilliant, jewel-like Amaco Metal Enamels in 36 colors are available in the three low cost sets. Each attractively boxed set consists of 12 acid-resistant, 80-mesh, opaque and transparent colors in clear vials for \$2.50. In a single set there is sufficient enamel to decorate several dozen small pieces of gold, silver or copper metal. Firing in a pre-heated kiln from 2 to 3 minutes at 1350-1450° Fahr. fuses the enamel permanently to the metal surface. Amaco Metal Enamels are available also in 1-oz., 2-oz., 8-oz. and 1-lb. Send for illustrated direction Booklet No. 7 with catalog section.



The traditions of 400 years are still carried on in this picturesque Bavarian setting

BABBBBBBBBBB

An Old World Pottery



by ANN MOORE and WILFRED HARBKE



THIS QUAINT Bavarian structure has been the Hettiger family pottery and home for over 400 years. Note the pots and plates on roof and wall!

S OUTHERN BAVARIA is a name that might possibly bring to your mind a picture of a rotund little man dressed in *lederhosen*, white calf socks, green hat with a large feather in the band, black stubby shoes and a bright colored shirt. For history majors it's a part of Germany that figures prominently in numerous wars, and for music lovers it's a sojourn to Bayreuth for the Wagner Festival. For art students it's woodcarving, ceramics, museums, etchings and a nostalgic remembrance of the Bauhaus. To most Americans in Germany, it's a constant ruffling of their Berlitz beginning German book or one optimistically titled "Ich Lerne Deutsch."

Regardless of what interests you about Germany, you can't be in this country very long before you discover many things not included in books. The blackened chimney sweeps, carts drawn by cows, wagons pulled by mammoth horses, women plowing in the fields—all are constant reminders of the ever-present past.

Situated on the Main River, and approximately 40 miles south of Frankfurt, is a small town called Hafenlohr. The name of the town is significant, for *hafen* means pot and the name of the stream that runs through

Please Turn the Page



A BOWL is being thrown by Herr Hettiger on the same kick wheel his grandfather used. The clay is dug on the banks of the Main River near the town.

the valley is the Lohr. Before the Reformation and the ensuing Thirty Years' War, the Lohr Valley was one of the most important areas of pottery-making in Germany. All of the townspeople then were well versed in this art. But now, many hundreds of years later, Karl Hettiger is the only one in town who still digs his clay, grinds his own glazes and decorates his pottery with old Germanic motifs dating from the 12th-13th Century.

Avid collectors of porcelain and Bavarian China would not give this peasant ware a second glance perhaps, but the antiquated method of producing this pottery is like turning the calendar back 400 years. The German Government is interested in preserving Herr Hettiger's home for historical reasons and as you enter the front gate you begin to understand why. The outside of the house is covered with numerous decorated plates, some containing pictures and others giving words of advice on love and life.

As you walk up the worn stone steps, you enter a small hall. To one side is a room and, as Herr Hettiger holds the door open for you, you must duck your head as you enter. The amazement that comes from your first glimpse of the room immediately turns to interest. In the middle of the wooden floor is a large pile of wet clay ready to be put in the old pressing machine; hanging on the walls are old and rusty pottery tools still being used; and an old grinding stone leans in one corner. The pottery wheel with its worn bench catches the afternoon light, as well as your eye. Long wooden boards placed overhead support drying pieces of pottery.

With the ease that comes from years of placing a mound of clay on a round wheel and creating a shape

HETTIGER often consults the family reference book, dated 1601, in which are written formulas for clays, glazes, underglazes and overglazes.

ANCIENT MORTAR and pestle are still in use for grinding the raw material that make up the glazes and underglazes used by the potter.





CERAMICS MONTHLY

from it, Herr Hettiger sits at his kick wheel and makes a piece of pottery in just a few minutes. The clay that he uses comes from outside the small village of Hafenlohr, in a deposit along the Main River. It takes Herr Hettiger and his son eight days to dig and process a batch of the clay. The clay itself is found in four color layers—red, yellow, bue-gray and pale blue. To make large pieces of pottery, such as you notice on top of his house, Herr Hettiger always lets his clay age at least one summer and one winter before using it.

After a piece of pottery is made, decorating and glazing are the next steps. For reference, Herr Hettiger has an old book, hand-written, giving formulas for glazes and underglazes. This family "recipe" book is dated 1601. The basic formula for white underglaze reads as follows:

3/4 Mässlein sand (glass, sand, quartz)

10 spoons of white clay color from Klingenberg

5 boiled potatoes

1/4 Mässlein rice starch

A Mässlein is an old measurement and is approximately ½ liter. First, the clay is ground; the potatoes are boiled, peeled and screened; then the rice starch and sand are mixed with the clay and the mixture is re-ground. Lead ore is ground and added to this mixture to make a transparent glaze. Herr Hettiger also states that the sap from the heart of a cherry tree is good for mixing colors.

Cow horns were once used by his ancestors to hold the underglaze colors. These proved to be rather bulky and were replaced with small clay balls hollowed in the middle and having long slender spouts. The long spout is used for decorations, either for making spots or long lines. These are kept in a shallow bowl filled with water so that the colors will not dry out.

Every Saturday Herr Hettiger goes to the local blacksmith shop and gets the small metal filings that are left from the blacksmith's pounding of iron. From these filings he makes two colors of underglaze, yellow and black. For yellow, he places the metal filings in a water container outside his house to hurry the rusting process. The more rust there is, the deeper the yellow becomes. For black, he uses the filings as he gathers them from around the blacksmith's working area. These filings are added to the basic underglaze formula, giving him the two different colors. To obtain his beautiful deep green underglaze, he places bits of scrap copper in pots that are being bisque fired. After the firing is completed, the residue left in the piece of pottery is copper ash and this is used in the same manner as the metal filings.

To heat his brick-lined kiln, Herr Hettiger cuts blocks of wood and burns them in an oven underneath the kiln. Maturing heat for his glazed objects is approximately 1850 degrees; it takes about 40 hours to reach this temperature.

If you're interested in pottery that is translucent when held to the light, you'd never be happy with this thick red clay. If you want a delicate, fragile object, the big, brusque decoration motifs found here will not satisfy you either. On the other hand, if you would like to have a piece of pottery that is a memento of the ever-present past, the name Hettiger scrawled on the bottom of a piece of decorated clay should more than satisfy you.

SMALL POTS with slender spouts are filled with underglazes and used to slip-trail the fine lines for the traditional decorative motifs.





FINISHED PLATES show the ancient Bavarian designs executed in underglaze over the red-firing clay. They are covered with transparent glaze.



RICHARD PEELER Exhibit at South Bend ART CENTER



PLANTER is stoneware, 16 inches tall. The stamped textures and designs are accented with white engobe.

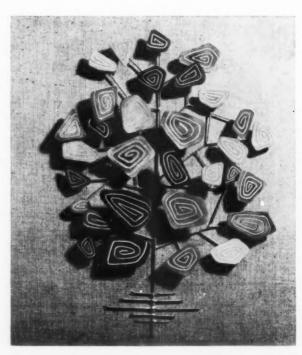


WINDBELL LANTERN is a combination of two forms executed in stoneware. This construction is 60 inches tall.

THE ART CENTER sponsored by the South Bend (Indiana) Art Association has expanded its program of ceramic exhibitions this year. Harold Zisla, director of the Art Center, reports that the first of this series of exhibitions received enthusiastic response. In addition to the important and popular Michiana Regional Ceramic Show, the Center has scheduled one-man shows by John P. Glick (Farmington, Michigan), Richard Peeler (Greencastle, Indiana), and Nicholas Prokos (Highland Park, Illinois). The exhibits also include a group show by students and faculty of the ceramic art department at Ohio State University.

The current exhibit (December 3-24) consists of 40 pieces by Richard Peeler, ceramic instructor at the Art Center of DePauw University. Included in this show of ceramics and sculpture are works in clay, enamel on metal, stained glass, plaster, stone and wood. A selection of pieces from this exhibit is presented on this page.

WALL HANGING is enamel on copper soldered on bronze rods. Colors are blues and violets; height is 24 inches.



More About

CERAMIC SCREENS

by F. CARLTON BALL

In earlier issues of CM (November 1960, April and May 1961), Mr. Ball demonstrated how to make distinctive and versatile ceramic screens from sections of wheelthrown cylinders. In this article he explains how a simple hand-building technique can be used to create individual and effective screens and room dividers.—Ed.

CERAMIC SCREENS or room dividers are useful and unique ceramic constructions. Their designs can be as varied as the personalities of the different people who make them. Making one of these interesting constructions is quite easy to do by the hand-building method; it doesn't require much time or any special equipment; and it makes a wonderful project for family, group or classroom participation. In addition to all of these distinct advantages, making a screen is fun!

A screen can be used indoors or out. It might be built to act as a grille for a window or door, for a wall decoration, or as part of a wall. As a room divider, it can be used to great advantage to partially separate different living areas in modern homes, or to help create two rooms out of a single one.

Equipment The process of screen making demonstrated here is a simple one that doesn't require a wheel, workshop, or any special tools. In addition to clay and a kiln for the firing, nearly everything needed for the work is available in any home. In fact, the whole hand-building project can be done in the kitchen. The tools and materials required are:

Bread board
Dish towel
Rolling pin
Cookie cutter
Ice pick
Pliers
Rroom handle
Screw eyes
Redwood for frame
Coping or hack saw
Aluminum clothes line

Procedures Place a dish towel over the bread board or a flat table surface. Spread 'the well-wedged clay (I used stoneware) over the cloth by pounding it with the fist, then roll the clay to a thickness of 1/4" to 3/8" with the rolling pin. The clay slab need not be of a consistent thickness.

Using a pencil or other pointed tool, draw on the slab the outlines of the shapes you want. If you want to

attempt a design scheme similar to the one I used, make various shapes of several sizes. Cutouts in the design can be made with cookie cutters; the number of these in any piece also can vary. I used cutters with 3/4" and 1" diameters. Various sizes can be used on any one piece.

Cut the shapes from the slabs with an ice pick, then lift them from the towel and place them on a piece of cardboard. Smooth the edges of these pieces to remove any roughness from cutting. The design units will have more interest if they are not left flat, but have undulating surfaces. To curve them for this, place balls of clay under the "arms" of the design sections. If a texture is desired on the surface of the clay, it can be made by the fingers, sticks or any tools that produce what you want. Allow the tiles to stay on the cardboard until they are quite dry.

When the tiles are dry, an engobe or underglaze color can be washed into the texture and then wiped off the surface. This heightens the effect of the texture, and you may or may not want this additional emphasis.

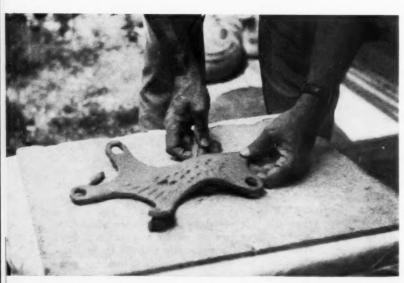
The dry tiles are bisque fired next. Final finishing can be done by dipping the tiles into glaze (or brushing or spraying them). They are then placed in the kiln on stilts and fired to the maturing temperature of the glaze. If the glazing and stilting of the pieces seems to be too much work and presents too many difficulties, you may decide to use a finish other than glaze. I glazed one of my screens, but I must admit it took more time to glaze and stilt the pieces than to make them! I made a second screen more easily by dipping the bisqued tiles in a thin slip of Barnard clay, then sponging the excess slip off the surface and leaving it only in the textured areas. These tiles were stacked helter skelter on top of each other in the kiln shelves, and then fired to cone 10 in a reduction atmosphere. The finished tile were a beautiful bisqueand-black combination.

Assembling the screen is the next step. Spread the tiles out on the floor or a large table surface to see how much space they will cover and to figure out just how they can best be combined for effect. I find that it is a good idea to make a few extra tiles so that you can choose those that fit together most advantageously. This certainly is better than having to make more tiles!

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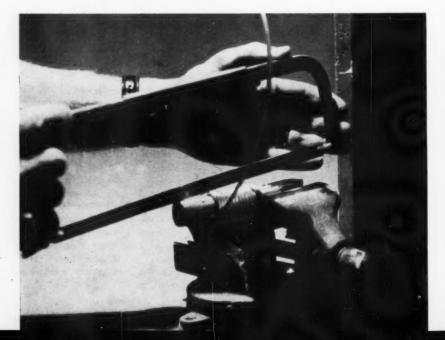


 CLAY IS ROLLED out into a large slab, decorative holes are made with a cookie cutter, and the design unit outlines are cut with an ice pick.



 TILES ARE REMOVED from slab and allowed to dry on cardboard. Texture is added to the surface and lumps of clay are placed under portion of the tile for undulating effect.

3. ALUMINUM CLOTHES LINE wire is wrapped around a broom handle, fastened in a vise and cut lengthwise to produce the metal links needed to assemble the screen.





4. AFTER THE TILES are bisqued and glazed, they are connected to one another and to the screen frame with the aluminum links. Pliers are used to open and close the metal pieces.

 HAND-BUILT TILES are assembled in a redwood frame and displayed against a lighted background.
 This construction can be used effectively as a screen or space divider.

Now you are ready for the frame, which you can make (or have made) from 2" x 3" lumber. Strengthen the frame by using metal corner braces in the construction. I used redwood, but you may prefer another wood if it is to match or contrast with existing woodwork. Wrought iron would make a nice frame, but it would certainly present problems that most of us aren't prepared to solve.

To connect the various sections of tile together and to place them in the frame, you must make some metal links. These can be made quite easily by wrapping a length of nine-gauge aluminum clothes-line wire around a broom handle. Separate links are made from this coil by cutting lengthwise through the wire with a hack saw or coping saw, then separating the finished metal links. Aluminum cuts very easily.

Stand the wooden frame upright or hang it from an overhead support before attempting to assemble the tiles in it. Choose the tiles for the top row and mark the connecting spots on the frame where the holes of the tiles come in contact with the wood.

Use a nail to pound small holes in the frame, and into these holes put the small screw eyes. Next, connect the tiles to the frame with your improvised links, and close the links with the pliers. Repeat this process to connect the tiles. Continue working down from the top, adding more rows of tiles and connecting them to the frame and to each other. Choose tiles that fit together easily, and vary the sizes and shapes to increase the design interest. The screen or divider will be fairly rigid and strong.

When the assembly of the tiles in the frame is completed, the unit is ready to install where you want it. Many interesting effects may be achieved by experimenting with lighting to create fascinating highlights and shadows. I think you will find the screen as beautiful as it is useful.



ENAMEL "CAMEOS"

This unusual enameling process is an easy and exciting way to achieve the cameo effect in jewelry!

By NELLY ALLAN

C AMEOS are carved reliefs or engraved gems on precious or semiprecious stones or shells. To obtain the most striking effect, they have two or more superimposed layers of different colors. The design, often a portrait head, usually is cut in the light-colored vein and the dark one is left as a background.

The uses to which cameos have been put are numerous: ancient ornamented vases, hair ornaments, bracelets, rings and brooches. In the Middle Ages they were lavished upon reliquaries, chalices and crosses in the church. Knights fastened them upon their armor and small cameos were worn as amulets. In Europe, especially in Italy and France, cameos still are being produced in great quantities; the hand-engraved stones are set in rings, brooches, earrings, necklaces, bracelets, tie clips, cuff links and other pieces of jewelry.

This cameo effect can be achieved in enamel to make very striking jewelry. I recommend using either copper or silver-plated steel covered with a transparent enamel as a background. The silver-plated steel is especially suited for building up a cameo for it is strong enough to withstand building up a relief in several layers. However, copper pieces can be used successfully for cameo relief designs if they are made stronger by being counterenameled.

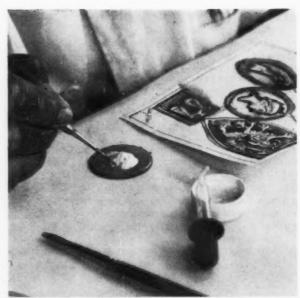
It is, of course, advisable to make a preliminary sketch and to work from it. Some of the different pieces of jewelry which you might like to try in the cameo-like effect are necklaces, earrings, pendants, brooches, tie clips, cuff links, rings and belt buckles.

One of the first decisions you must make is the matter of contrast. If a dark transparent background is desired, a light-shaded cameo relief will stand out better. If a light transparent background is applied, a dark shaded cameo would be more effective.

The cameo portrait head demonstrated here is done in the following way: a dark blue transparent enamel is sifted onto a cleaned copper piece and fired to provide the background. White enamel, moistened with water from an eye dropper, is mixed to a paste-like consistency, and this is applied to the fired background shape with a dental tool or fine camel's-hair brush. The design, high

1. PRELIMINARY DE-SIGNS are worked out on paper with water colors before the project is started. Mrs. Allan selects the center design for her demonstration here. The finished project will be a cameo-like medallion attached to a very fine chain for a pendant.

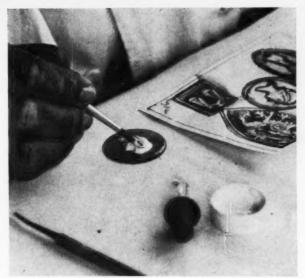




2. CAMEO IS STARTED on a counterenameled copper disc whose top surface is sifted with dark transparent enamel and fired to provide the background. White enamel, moistened with water from an eye dropper to a paste-like consistency, is built into a relief with a dental tool.

enough to be seen from the side as a relief, is built up in two or three layers. It should give a three-dimensional appearance. Just as one might work in clay, building up forms and shapes, a relief can also be made in wet enamels by adding wet layers where roundness is supposed to be, and by taking them off when depth is desired.

While the relief is still wet, any shading can be done by brushing on transparent enamel very lightly and carefully in order to bring out the forms and shapes to give a cameo effect.



3. THE PRELIMINARY SKETCH is closely followed as more enamel is applied to the piece to give it a greater dimensional effect. Alternate use of the dental tool and the brush are combined to build up the cameo form and give it roundness and depth.



5. THE CONTOUR of the built-up design also is shaded with the contrasting color used in Step 4. A wet brush is used to remove any excess of enamel on the fired background. When the enamel relief is dry, the piece is stilted, returned to the kiln and fired.



4. SHADING ON THE CAMEO is done while the relief still is wet. The desired color of transparent enamel is brushed on, very lightly and carefully, to help bring out the form and shape and give it a greater feeling of depth. Mrs. Allan uses dry enamel for this.



6. FINISHED PIECES in the "cameo" technique include a horoscope necklace, earrings, pendants and brooches. All were executed by Nelly Allan in enamels on silverplated steel.

Shading can also be done with a fine brush or tool as a contour effect around the design. The final step is the use of a fine wet brush to remove any excess enamel.

The completed piece is placed to dry and is fired to a glossy surface. Usually the whole process can be done in only two firings—one for background and one for the relief. If results are not quite satisfactory, you may wish to build the relief higher and fire again.

This new process of enameling is an easy and exciting way to simulate a cameo effect in jewelry. Try it and you will enjoy it too!

An Inside Support Is Used To Make This

SLAB-BUILT CYLINDER

by DON WOOD



ONE OF THE interesting challenges in any craft is to develop new methods for forming and controlling our materials. Sometimes, as in the case of the method shown here, a switch in thinking may open up many new possibilities. Habits of thought and past experiences may limit our thinking to the use of molds for the outside when we form clay pieces. Why not try to put the mold on the inside of the pot instead of the outside?

After we have explored the infinite variety of forms that can be produced under the limitations of an inside mold, we may come to realize that very good results can be achieved while observing almost any set of limiting factors in the process. The creative thing to do is to discover, develop and use the potentials of any one method, seeking the expression of its unique character and ex-

ploiting these possibilities to the fullest,

The cylinder used for the inside mold in this demonstration came from a roll of commercial-grade wax paper from a grocery store. Larger sizes can be had at a linoleum rug store, where many cardboard cylinders from 6 to 8 inches in diameter are discarded each week. The method suggests also that square, rectangular, or other multiple-sided geometric forms may be fabricated and used. In this case the diameter of the cylinder was enlarged by rolling onto the cylinder several thicknesses of

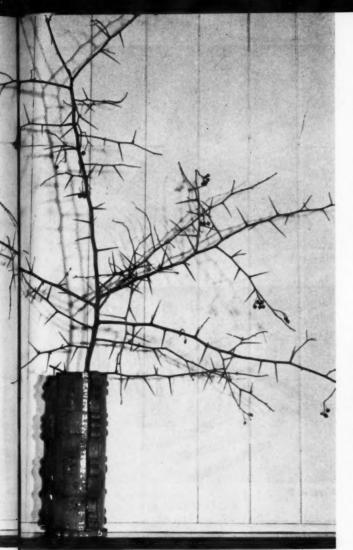
corrugated cardboard. This was done to give the finished pot a more satisfactory width-height proportion.

Figure 1. Several strips of clay cut to the proper thickness are rolled together by overlapping them (like shingles) about ½ inch. The density of the clay in the rolled joint area will naturally be greater. Because of this it will show after firing as a slight rise in the form. This is no disadvantage if the designer counts on this factor and designs accordingly. In this case, the slab was rolled so that these rises would form horizontal belts around the middle of the pot. Their appearance would be an enhancement rather than a defect in the form of the pot.

Figure 2. The clay slab can be cut to the exact size necessary by using a paper pattern. The paper is simply rolled onto the cardboard cylinder for size and this is used as a pattern for trimming the clay. The pattern is cut large enough to allow about ½-inch overlap at each

end of the clay slab.

Figure 3. An aluminum foil sheet is rolled onto the cardboard cylinder to act as a water seal, so that the wet clay will not soften the cardboard mold. This aluminum "skin" on the inside of the pot allows the cardboard mold to be easily slipped out of the pot. This aluminum piece is later stripped off so that the pot will dry properly. A bench cloth is used to aid in the handling of the clay slab as it



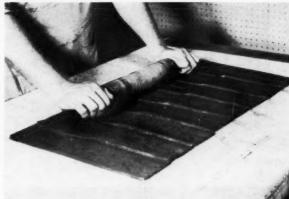


Figure 1



Figure 2

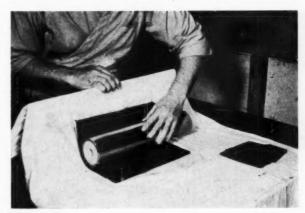


Figure 3

is rolled onto the cardboard form. A stick of wood rolled into the edge of the cloth makes it possible to manage the cloth and also keep the clay slab straight.

Figure 4. With the support of the cardboard form on the inside of the clay cylinder, it is easy to firmly paddle or press the clay joint together without distorting the pot. A thick slip should be applied before welding the joint together.

Figure 5. Thick slip is applied to the end of the clay cylinder in preparation for fastening the bottom slab. The clay for the bottom is of the same batch as the clay used for the sides of the cylinder; it has been lying in the open during the time the clay cylinder was being fabricated. This should insure the two pieces of clay having the same water content. If the bottom piece of clay were of a different water content than the sides, it would not shrink at the same rate as the sides and cracking might result.

Figure 6. The bottom piece is trimmed after it is stuck in place. The soft clay cylinder is easily handled without distortion because of the inner mold support.

Figure 7. A slab of clay which has been wire-cut to the desired design is cut into three strips in preparation for fastening on the sides of the pot. This clay, too, should be of the same batch and water content as the rest of the



Figure 4



Figure 6



Figure 8

clay being used. (The construction and use of the slab slicer for making these wire-cut designs was thoroughly covered in Mr. Wood's article in the October '61 issue of CM.—Ed.)

Figure 8. An additional strip from the same decorative wire-cut slab is prepared to be used for a foot rim. Thick slip is applied to the strips, which are firmly pressed onto the sides of the pot at one-third intervals. A block of wood can be used to press them firmly onto the pot.

Figure 9. The completed pot is shown after the card-



Figure 5



Figure 7



Figure 9

board cylinder has been removed. The pot was allowed to dry to almost leather hardness before removing the inner mold. This is made possible by the cushioning effect of the roll of corrugated cardboard over the inner cardboard cylinder. The clay could shrink quite a bit, squeezing the mold, without much danger of cracking.

This inside-mold technique makes it possible to sprig on any kind of clay decoration while the clay is still quite soft without danger of collapsing the pot. This interesting method of hand building should suggest many possibilities to the imaginative craftsman.

An Enameled



TOY for

by KATHE BERL

CHRISTMAS

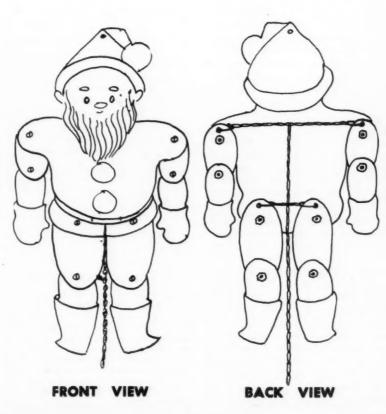
To make this christmas a merry one for the children, I'd like to suggest a handmade enameled

Today's commercial toys - scale models of real things made from plastic-leave very little to the child's imagination. And if the child receives nothing but the mass-produced items identical to those given to millions of other kids, how will he ever learn to treasure and care for something that is handmade and therefore unique? I would like to suggest making a toy that a child will be proud to own; one that he will be able to identify with the giver; and, last but not least, one that he will enjoy!

Children love toys that move, and not only those that are motor propelled! They like those that move either fast or slow and can be manipulated according to their own whims. When I was a child I made toys for myself, and I still like to do this.

This Christmas season I want to describe a very simple toy that any enameler can make for a child's gift. In is an enameled "jumping jack"

Continued on Page 32



FILMS on ceramics

FOR RENT OR SALE—This up-to-date list of instructive film, filmstrips and slides on ceramics tells where and how to order them.

THE MOTION PICTURE is a potent teacher, being both fascinating and instructive. It is a valuable aid to students, teachers, recreation leaders and all ceramic enthusiasts. It also provides a new way to interest others in the craft.

The editors of CERAMICS MONTHLY have recognized the value of films that show the making of molds, different methods of decorating, glaze application and good craftsmanship. It is inspiring to watch a potter at his wheel; helpful to see the correct way to load a kiln. The mixing of glazes, making of mosaics, enameling, and clay working—all these have been captured on film for your viewing pleasure. And because of such widespread interest CM has compiled an up-to-the-minute list of these films, film-strips and slides for its readers.

There is no big production involved in obtaining these films. They may be borrowed, rented or purchased outright. Your neighborhood library is a convenient source if it has a film division. It is also a thrifty source as there is little or no charge for a 24hour period.

Another supplier could be your local museum, university or public school system. They often are able to loan or rent their films to interested outside groups. Or you might contact another craft group in your area; they might be glad to loan one of the films they have purchased for the use of one of yours.

Should none of these institutions or groups be able to fill your requirements, there is the commercial film rental service. (This is listed under "Motion Picture Film Libraries" or a similar heading in the classified telephone directory.) These dealers can either supply your needs or advise where they can be obtained. Distributors prefer that film-users contact their nearest audio-visual agency before writing directly for specific titles, as the films are usually available locally. However, the companies will gladly help you and direct you to the

proper agency if you cannot find the film required. Distributors suggest reservations be made at least four weeks in advance.

Below we have compiled a complete and up-to-date list of such films—as far as our researching has been able to determine—with a brief descriptive paragraph about each. If you know of other films of possible interest to the ceramic-minded, let us hear about them and we'll investigate them for inclusion in a subsequent revised list.

Unless otherwise noted, each film listed is 16mm., black and white, sound; the borrower pays transportation charges both ways.

Almanac Films, Inc. 516 Fifth Ave. New York 36, N. Y. HOW TO MAKE A PLASTER CAST

Plaster casting is visualized in detail—the cutting of the shims, preparation of plaster, slow motion of wet-plaster "flipping," making the mold, and preparing it for casting. 10 minutes; \$2.50 a day; \$50 purchase.

American Craftsmen's Council Research Service 29 West 53rd St. New York 19, N. Y. YOUR PORTABLE MUSEUM

Over 4500 color slides arranged in kits are available to art schools, university art departments, museums and craft organization that are ACC members. Write for the brochure, "Your Portable Museum," which includes a full description of the kits and rental fees.

Audio-Visual Center, Indiana University Bloomington, Ind.

DECORATION

This and the following five films make up the "Craftsmanship in Clay" series released by Indiana University. Each is demonstrated by Karl Martz, well-known Director of Ceramic Arts at Indiana.

In "Decoration" he demonstrates the use of three basic materials for applying decoration on a clay surface—clay, glaze, and slip. Mr. Martz also explains the mishima, sgraffito, and wax-resist methods. Summary includes representative pieces done by using the three materials. 10 minutes; in color; \$3 for five days; \$100 purchase.

GLAZE APPLICATION

Presents four methods—dipping, pouring, brushing and spraying — and points out the advantages of each. Demonstrations include special techniques, proper preparation of a piece of clay for glazing, and precise finishing before firing, with stress on good craftsmanship. 10 minutes; in color; \$3 for five days; \$100 purchase.

SIMPLE MOLDS

Mr. Martz demonstrates how a piece is made from a mold by the slip casting, draping, and pressing methods. 10 minutes; in color; \$3 for five days; \$100 purchase.

SIMPLE SLAB METHODS

Mr. Martz takes the viewer through the steps of forming a candle holder directly from a lump of clay, rolling a slab for a simple tile, and constructing a flower container from several pieces of clay. Correct use of basic tools is emphasized. 10 minutes; in color; \$3 for five days; \$100 purchase.

STACKING AND FIRING

Shows the correct stacking of both green and glazed pottery in a small kiln and each step of the firing process. Spectator is shown the use of stilts and plate pins to support the pieces, placement of the ware in the kiln, the use of pyrometric cones, and the necessity for firing and cooling pieces carefully. 10 minutes; in color: \$3 for five days: \$100 purchase.

THROWING

Illustrates the forming of pieces on the wheel, removing from the wheel, trimming the base, forming a foot rim, and using special throwing techniques in shaping a plate and pitcher. 10 minutes; in color; 83 for five days; \$100 purchase.

AV-ED 7934 Santa Monica Blvd. Hollywood 46, Calif. THE POTTER'S WHEEL

Richard Petterson of Scripps College demonstrates how to throw pitchers. A review of fine examples of thrown ware is given. 10 minutes; black-and-white rental \$3 a day, \$6 a week; \$50 purchase. Color rental \$6 a day, \$12 a week; \$100 purchase.

SIMPLE CERAMICS

Mr. Petterson shows how to use simple household utensils for decorating a clay slab which is later slung in a hammock mold to make a bowl. 10 minutes; rental and purchase same as above.

MAKING A MOSAIC

The making of a mosaic from the original sketch to completion is demonstrated by Ada Korsakaite. She also shows the making of handmade ceramic tile rolled and cut from common clay. Another sequence pictures a 10-year-old making a checkerboard from uniform squares of commercial tesserae. 10 minutes; rental and purchase same as above.

CERAMIC GLAZES

The mixing of an opaque matt and a stone glaze, both showing wide firing latitude and high color receptivity, are demonstrated by Richard Petterson. Glaze application by various methods plus kin interiors during firing are shown. 10 minutes; rental and purchase same as above.

PRESS MOLD CERAMICS

Using simple tools, Ada Korsakaite carves a group of figures in plaster of Paris and then presses clay into the carving to form a plaque. Demonstrating the simplicity of the method, a 10-year-old carves and presses several medallions. 10 minutes; rental and purchase same as above.

SCULPTURE FROM LIFE

Creation of a life-sized head, working from a posed model. Starting with the armature, the clay is added, the head is constructed and details of the face and hair are formed. 10 minutes; rental and purchase same as above.

Bailey Films, Inc. 6509 DeLongpre Ave. Hollywood 28, Calif. MOSAICS FOR SCHOOLS

Ways of making simple mosaics are explained and demonstrated, and a mosaic mural is created by children in an elementary school. The film emphasizes the importance of planning and organization before work begins and stresses the individual and his contribution to a group project. Produced at Central Washington College of Education. 10 minutes; color; \$6 rental; \$120 purchase.

Brandon Films, Inc. 200 W. 57th St. New York 19, N. Y.

CLAY POTTERY

The process of creating pottery, from the digging of the clay to the finished product, is shown. Produced in cooperation with the Universal School of Handicrafts, New York. 10 minutes: \$3.50 a day; \$50 purchase.

ANCIENT GRECIAN IMAGES

Examples of Greek art in the Louvre (principally the Tanagra excavations)—primitive clay and terra cotta figurines, Cretan gods and goddesses, Greek art on the eve of the Roman conquest. 10 minutes; \$5 rental; \$45 purchase.

POLISH MANUAL ARTS

Documentary, narrated in English, based on American Federation of Arts'-sponsored exhibit of Polish handicraftr-Examples of traditional craftsmanship in sculpture, ceramics, glass paintings. 11 minutes; color; \$5 rental; \$120 purchase.

Canadian Consulate General 111 N. Wabash St.

Chicago, III.
CRAFTSMEN OF CANADA

The film shows how arts and crafts are now being restored to serve a useful purpose in an industrial society. The viewer is taken on a review of crafts across Canada, crafts as we find them in shops and at exhibitions, and we see craftsmen at work—a potter, a weaver, a woodcarver and a metal sculptor. 27 minutes; color; may be obtained without charge by request.

Contemporary Films, Inc. 267 West 25 St. New York 1, N. Y. CHINESE CERAMICS THRU THE AGES

The world has known only too well the origin of porcelain, commonly called "china." Yet the full range of the accomplishments of the Chinese potter and the meaning of the interdependence of various cultures for their nourishment and growth, can only be understood by viewing the evolution of Chinese ceramics from Neolithic carthenware down to pure porcelain. This film is designed to offer such a pan-

Encyclopaedia Britannica Films, Inc. 1150 Wilmette Ave. Wilmette, III.

oramic view. 20 minutes; color; rental

\$10 1st day, \$5 following; \$185 purchase.

CLAY IN ACTION

How to sculpture a portrait in clay is demonstrated by Arturo B. Fallico, of Chicago Teachers College. Such essentials as basic measurements, principal planes, tools, and interpretation are discussed. 12 minutes; \$2.50 for one to three days; \$60 purchase.

COLOUR IN CLAY

This is the story of modern English commercial pottery. The clay is shown as it's worked at the potter's wheel, and at the turner's lathe. Afterwards, the pottery is decorated, glazed, and fired. The film exemplifies the successful combination of art principles with modern technological methods. 12 minutes; in color; \$4 for one to three days; \$120 purchase.

POTTERY MAKING

The film describes each step in the making of pottery by four different methods. A vase is formed on a potter's wheel, an Indian bowl is fashioned with coils of clay, a vase is made in a plaster mold, and a table piece is assembled from patterned slab pieces. Explains how each object is dried, bisqued, glazed, and glazefired. 11 minutes; \$2.50 for one to three days; \$50 purchase.

Paul Hoefler Productions, 1122 Kline St. La Jolla, Calif.

MEXICAN POTTERS

Pottery making is depicted as part of the art of living in Mexico. The audience learns how the native Indian, the Spanish-Colonial, and the Modern International cultures influence the Mexican arts and crafts. Il minutes; color; no rental; \$110 purchase, including reel, can, shipping.

International Film Bureau, Inc. 332 S. Michigan Ave. Chicago 4, III.

CRAFTS OF FIRE

This film depicts the part fire plays in the making of enamels, glassware, porcelain, pottery, and dinnerware. 10 minutes; rental \$3.

CHINA CLAY

Many phases of the industry are shown—how china clay is obtained from pits in Cornwall, how it is processed and finally becomes Great Britain's third largest export of raw material. 11 minutes; rental \$2; \$40 purchase.

POTTERY ON THE GOLD COAST

A government training center set up at Alajo to teach Africans methods developed by potters in other countries is portrayed. You see the complete techniques of pottery making from the raw clay to the finished article. 9 minutes; \$2 a day; \$40 purchase.

PUEBLO ARTS

In this film are many fine "shots" of Maria of San Ildefonso, the well-known Indian potter. 10 minutes; in color; rental \$4.50; \$120 purchase.

THE POTTER

A University of Southern California production featuring Otto Heino, famed potter. This film is useful for art and craft groups on the secondary, college and adult levels. 13 minutes; in color; rental \$6; \$100 purchase.

ABC OF POTTERY MAKING

A demonstration of the coil method of pottery making. This film shows the use of template pattern, hand tools and the potter's wheel. Adapted to beginning students in high school and adult art classes. 9 minutes; rental \$3; \$50 purchase.

STORY OF PETER & THE POTTER

The story of a young boy meeting a family of clay craftsmen and watching them carry out the various stages of molding, shaping, painting, firing and glazing a bowl. (Elementary and up.) 21 minutes; in color; rental \$7.50; \$190 purchase.

ENAMELING ART

This film traces the historical development of the enameling art by showing museum examples of 15th and 16th century Champleve, Cloisonne and Limoges work. Classroom scenes are shown of students engaged in actual work. This is recommended for junior and senior high schools. 12 minutes; in color; rental \$6; \$125 purchase.

MOSAIC EXPERIMENTS

This is not merely a "how-to-do-it" film but deals with the techniques and elements of smalti, tesserae and blenko glass. It explores the creative aspects of youngsters, college students and adults. In addition to the structural devices employed in mosaic making the film shows how texture and design are an integral part of the medium and how rare mosaic sculpture is made. 20 minutes; in color; rental \$12.50 \$195 purchase.

Continued on Page 36

COOKIE JAR CAROUSEL

To hold those holiday treats, try a lighthearted decoration on a perky covered jar!

THE GALA HOLIDAY SPIRIT inspired the carousel cookie or candy jar decoration that Marc Bellaire demonstrates for us this month. Working on a greenware shape and using prepared underglaze colors, he creates a lighthearted decoration that will appeal to both children and grownups and make any occasion a special one when this piece is used.

Since the Christmas season suggests an abundance of many unusual cookies, candies, and other goodies, a perky covered jar shape that is perfect for holding these treats is selected for decoration. It is a form that strongly suggests that it might become a clown with a tall pointed cap, or a carousel topped with a gaily-bannered canopy!

Marc Bellaire's first step is an important one in creating the effect of a carousel. By sponging a background of light gray underglaze on both sections of the covered jar, he creates a suggestion of movement, of spinning merry-go-round mirrors.

Because the design composition is rather complex, a pencil plan is used to sketch in the various shapes that will make up this decoration. A very soft lead pencil is used; this will not cut into the greenware and the lines will burn out in the firing. The vertical shapes are somewhat dictated by the long, narrow shape of the piece, and Marc Bellaire selects a giraffe, lion, kangaroo and a horse for his carousel animals.

Different shades of brown are used to fill in the penciled areas and depict the animal forms. Black color is applied next to outline and to furnish details such as the heavy mane of the horse and the face and mane of the lion.

Brighter colors are introduced for use on the top of the carousel. Heavy strokes of alternating blue and pink are used for the canopy and fringe stripes.

Decoration is finished with black detail work on both parts of the jar, including the poles for the animals and accents on the canopy. Blue and black strokes are added for color and movement as pennants on the poles. After a few decisive sgraffito strokes are made, the piece is finished and ready for firing and glazing.

When filled with tempting treats, this amusing and festive covered jar is sure to become one of the most popular items of your holiday decorations.



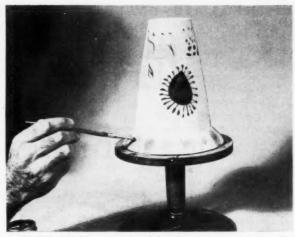
 SILK SPONGE is used to spin a light gray underglaze background on the two pieces, thus creating an effect of movement for the carousel.



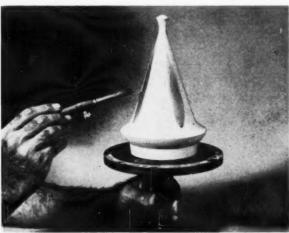
2. SOFT PENCIL used to sketch the animals over the underglaze background will not dig into the greenware; the penciled lines burn out in the firing.



 SHADES OF BROWN underglaze are used to fill in the penciled areas; black color is used to outline and furnish such details as the horse's mane.



 LIVELY COLOR is introduced for the canopy and fringe. The inverted base is painted with alternating blue and pink areas to suggest carousel fringe.



5. ALTERNATING strokes of blue and pink are painted on the lid for a striped effect. Long blue strokes are alternated with shorter pink strokes.



 DECORATION of the cookie-jar carousel is completed by the addition of painted black lines for the poles and a few decisive sgraffito accent lines.

REFLECTED LIGHT for Christmas Ornaments

by KAY KINNEY

AS DECEMBER PROGRESSES, most of us are engrossed with holiday preparations, and usually there is neither the time nor the inclination to become involved in lengthy projects. With this inevitable situation in mind, a few suggestions for last-minute gifts and decorations are offered.

Previous glass articles have, for the most part, stressed the factor of transmitted light; that is, the deliberate use of natural or artifical light to emphasize color and design. There are, however, instances where transmitted light is not possible.

Christmas tree ornaments must depend on reflected light, which probably accounts for the predominant use of mirrored or metallic surfaces. Glass can be coated with metallic overglaze (gold, copper, platinum or palladium) to provide reflected light. Liquid forms of these metals are easier to apply than the pastes, and those recommended for use on glass generally produce the most satisfactory results. It has always been a mystery to me that glass gold, which is formulated to develop a metallic gleam at cone 020 for stemware (which can start to sag or deform at ceramic gold temperatures), should remain bright and unblemished through the various degrees of heat necessary for glass bending or fusion. Ceramic gold is apt to discolor or partially disappear when subjected to a higher heat than has been recommended.

For brushing application, the metals are incorporated in a viscous vehicle which burns out when fired and leaves a thin plating on the glass. During the initial stages of the firing, the vehicle produces fumes-sometimes accompanied by smoke-which must be allowed to escape from the kiln to prevent discoloration or frosting of the glass. When just the upper surface of the glass is decorated, it is sufficient to vent the kiln by wedging a post or broken piece of kiln shelf between the lid (or door) and the kiln; when the metallic overglaze is laminated or applied to the subsurface, the fumes are trapped and cause discoloration. For these procedures it is wise to fire the glass, decorated side up, to 1000°F. (or cone 022) and permit it to cool before reversing the piece or adding further decoration. The metallic overglaze must be thoroughly dry before firing; it is not advisable to attempt to hasten the drying by forced heat, since this tends to cause blisters. The glass should be clean and lint-free.

Photo 1 shows application of glass gold. The disk will be used as background for a miniature "picture." Irregular shards are leftovers from Inlaid Glass and Madonna projects (see October and November 1961 CM).

Photo 2 shows some shards and the objects on which they were fired. Each produced a different effect. All were coated with a glass separator. Metallic overglaze produces maximum reflection when the glass is bent. At the left is a clay collar mold inverted to produce a convex form rather than concave; other objects include a piece of firebrick carved in a "bridge" shape; a small bisque tile; and a half sphere. Upper left shows shards formed over other small objects; these have been drilled and are ready for hanging with thread or nylon fishing line. Gold is most effective when used under yellows, greens, pinks and reds. Platinum or palladium is the best reflector for purples, cobalt blues and turquoise.

Photo 3: Shards are glued together in an openwork design. At upper right is an unfired unit—notice the absence of reflection. At left is a similar composition of identical colored glass which has been fired, resulting in three-dimensional reflectiveness. This example can be suspended and used for an ornament. At other times of the year, it might be cemented to sliding glass doors or picture windows as a decorative safety device to prevent serious accident resulting from an illusion that the door or window is open.

Photo 4: After prefiring a gold disk, a simple reindeer outline is sketched on a corresponding glass blank with translucent ceramic underglaze. Fine nichrome wire is shaped to continue the design past the edges to provide extending wires. The upper disk is then inverted, thus laminating the design and the wires. Green transparent glass glaze is applied to the upper surface; emerald green for the background and deep pink for the deer's body. Both disks are large flashlight lenses, which exactly fit the diameter of a tin can. The can is the type lined with a "gold" lacquer. Illustration shows the can with this end removed; the can is severed with a 1-1/2inch band, then fringed with small double-action tin snips. The fired disk is next bound in the opening of the can section by wrapping the extending wires around the rim between fringes.

Photo 5 shows a framed disk of the Three Magi (the other end of the can was used for this) and two



 GLASS GOLD is applied as background on disk and leftover shards of colored cathedral glass for reflected light quality.

smaller laminated disks, unframed. On these, the laminated wire loops were substituted for extending wires.

Photo 6 shows the use of bottles as ornaments; for these small projects, glass vials rather than bottles were selected. At left, the long vial originally held tiny moccasin beads; prefired gold on half the vial provides background for glass glaze brushed on the interior of the vial (center), and for vial filled with layers of pulverized colored glass. Hairpins were inserted in both vials to provide loops. Upper right, about ½ of the circumference of two small vials were brushed with gold then prefired. In the center are some fired vials. All interiors were brushed with chartreuse, turquoise and yellow glass glaze. Too tiny for safe drilling, these will have jewelry bell caps cemented to their tops for suspending; they will serve as earrings or ornaments for table trees.

Although all of these examples are comparatively small, the technique of reflective backgrounds can be utilized for larger panels or sectional murals for wall or fireplace decorations.



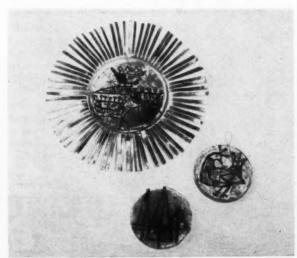
2. GLASS IS BENT over various objects in the kiln to produce different effects for reflecting metallic overglaze.



3. OPENWORK DESIGN for hanging ornament is made by gluing together and firing shards of gold-coated colored glass.



4. HOLIDAY ORNAMENT is made from laminated glass disk set in "frame" cut and fringed from a section of tin can.



5. THREE MAGI is the subject of this finished framed disk. Laminated wire loops for hanging are used on unframed disks.



 GLASS VIALS are made into holiday ornaments by the addition of glass gold, glass glaze and pulverized colored glass before firing.



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Toy for Christmas

Continued from Page 25

in the person of old Santa Claus himself. It is, of course, understood that only the mechanics of the toy are being discussed, for in addition to being a Santa it might take the form of a clown, turtle or a score of other movable objects. The size, too, can vary; the toy might be small enough to use as a tree ornament or as large as a child could handle.

To make certain that the finished toy really will work, I want to suggest that you first make a working model from cardboard in the actual size. When the model functions and suits you to perfection, use the parts as patters to cut the copper shapes.

The Santa Claus is made from nine parts. The head and torso make one part, each arm has two sections, joined at the elbow, and two parts joined at the knee are needed for each leg. All joinings are made with the help of bolts and nuts. The cardboard model can be activated with strong thread and the enameled finished piece can be worked by means of a thin link chain of brass or any other material that you prefer. I do not recommend a bead chain.

The figure should be designed with shoulders that are wider than the hips; this allows all of the parts to hang straight down so that the arms do not overlap the legs. If you will refer to both the front and back sketches of the figure before designing your own, you can see exactly what is needed for the shapes of all pieces if they are to join and manipulate properly.

Cut all of the parts out of cardboard and assemble them as the figure should appear. Mark and pierce the spots that are to join together, and also the tops of the upper arms and upper legs. Put a straight pin through each joint section, and bend the pins to hold the cardboard pieces together. Join the open holes at the tops of the upper arms and legs with strong thread, and to the center of these tie a long string that hangs down below the figure. (To make this whole operation easier. I suggest that these parts be weighted down on the table when you do this joining.) When the Santa figure is held up, pull down on the string and you should have a "jumping Santa."

With the model completed, the next step is to reconstruct the whole piece from copper (20 gauge). Get eight flat-headed bolts just long enough to pass through the copper and have space left for the nuts. You also will need eight nuts to fit the bolts. Drill holes of the proper size for the bolts in the copper pieces for the joints, and drill smaller holes to accommodate jump rings in the tops of the upper arms and legs. If the figure is meant to hang, a hole should be drilled at the top of the cap for a ring or chain attachment.

The next step is to enamel the parts. The only precautions I need to mention are to keep the drilled holes free of enamel and to flatten the pieces with weights when they are taken from the enameling kiln. The pieces must be flat if they are to func-

tion properly!

With all of the parts enameled, next assemble all of the joining pieces with bolts and nuts. Remember to put the bolt heads on the front of the enameled figure! Since the movement of the piece in use has a tendency to loosen the nuts from the bolts, I suggest putting a drop of household cement or liquid solder on each nut to prevent this. Attach oval jump rings to the holes at the tops of the upper arms and legs and join each pair with a piece of chain of the exact measurement as the strings on the cardboard model. Attach the "spine" chain with the help of jump rings if you are using a soldered chain, or with its own links if the chain isn't soldered. If you want to add a touch of elegance, attach an enameled earring blank or a metal ball button to the end of the chain.

There is no end to the possibilities in these moving figures, and the basic pattern can be given countless variations. This is a most fascinating project and I hope that you enjoy making a "jumping jack" figure as much as I do. Merry Christmas! •

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Ceram Activities

CANADIAN HANDCRAFT CENTRE

The Handcrafts Section of the Adult Education Division, Department of Education, Halifax, N. S., has announced the opening of its new Handcraft Centre. Located in downtown Halifax, the installation includes offices and library, a display room, and studios for pottery, metal, weaving and design. All craftsmen of the province are invited to visit and talk over common problems, examine the books in the library and study samples of materials and equipment. The new Centre is located on the third and fourth floors of the building at 157 Granville Street.

NEW OFFICERS ELECTED

The Central New York State Ceramic Association combined its regular monthly meeting with an installation dinner for the newly-elected officers. The new president of the group is Jane Lewis; Ruth Cunningham is the vice president; treasurer is Bert Vandermill; Regina O'Hara is acting secretary; and the corresponding secretary is Margaret Pierson. The next regular meeting will be held at Skaneateles with Ruth Cunningham acting as hostess.

DIXIE ALL-STATES SHOW

Over 4,000 pieces were on display at the second annual New Orleans Recreation Department's Dixie All-States Ceramic Show at Lyons Center in New Orleans, October 14-15. Awards were presented to



the best of show winners. Pictured is G. Gernon Brown, NORD executive assistant director, presenting a plaque to Mrs. Kathryn Hargesheimer who accepted for Estella Drewar (El Paso). Other winners were Elaire Schulz and Charles Galbo, both of New Orleans.

Entries were received from as far away as California. The School of Organic Training, Fairhope, Ala., won a first-place award for its group entries. In addition to the individual exhibits, 27 ceramic studios and manufacturers also had displays. Mrs. Bernice Sabrier, Arts and Crafts Supervisor for the NORD, directed the show.

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ENAMEL PROJECT COMPLETED

Enamelists Thelma and Edward Winter have completed work on the world's largest vitreous enamel-on-steel church decoration. In an item in this column (January, 1961) the enamel panels for the front of the church were shown. Pictured here is the rear of St. Mary's Romanian Orthodox Church, Cleveland, showing the ten figures of the Redeemed and Christ designed and executed by the Ohio couple.



Comprising 62 separate sections of 16-gauge metal, the project took approximately a year to complete. Colors are red, gray, black, white and 22-carat gold; the 62 sections, weighing 1,100 pounds, were applied by a screw and clip system to the off-white glazed brick wall. The figures in the enamel panels are 14 ft. high.

Mr. Winter pioneered this enameled steel form in 1934, and has executed more than a hundred murals for buildings.

AMONG OUR AUTHORS

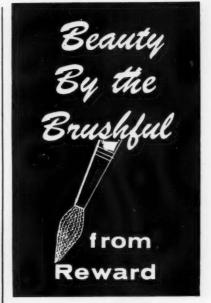
■ Ann M. Moore received her formal art training at Richmond Professional Institute, the University of North Carolina, the University of Virginia and the Ringling School of Art. After several years of teaching in Virginia, she spent two years as Craft Director for Army Special Services in Germany. While on this tour of duty she collected the material for her article on the Bavarian potter, Herr Hettiger. She has now returned to her home town, Granite Falls, N. C., after another tour of duty for the Army in Seoul. Fred Harbke, who collaborated on the story with Miss Moore, is a German National who was trained as a wood carver; he was a photo instructor for the Skylight Service Club in Aschaffenburg, Germany.

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NEW ADDRESS 6811 Washington Blvd. Baltimore 27, Maryland POWER of a kiln god is good only for one firing. Afterwards he is bisque fired and joins other used figures hanging above the kiln.



Clay figures guard the potter's work during the firing

KILN GODS

by ROBERT ENGLE



KILN GOD, quickly pinched from a lump of clay while the kiln is heating, is placed above the kiln door to guard the potter's work during the firing.

HAVE FOUND the cause for all firing accidents, both good and bad! Not the cure, mind you, but the cause. When things have turned out poorly in a glaze kiln and I have exhausted all possible scientific reasons for these accidents, I can turn to the kiln and point an accusing finger at a little pinched-out lump of clay perched there on top. This small clay piece is responsible for unanswerable happenings which have transpired during the firing. My "kiln god" caused the disappointing results! He's also a sure cause for the kiln which turns out well. A particularly interesting piece which turns out not as I had expected, but nevertheless truly enjoyable, can be attributed to the "kiln god."

Now it is not difficult to make a kiln god, but there are certain necessary steps and procedures needed to guarantee its power. After the kiln has been stacked for a glaze fire and the door is closed or bricked-up, turn on the kiln while holding a small lump of wet clay in the hand. It is most important that you face the kiln and model the kiln god while the kiln is starting its long temperature climb. Quickly pinch out a small figure after your own fancy and place him above the door. Speed-not accuracy-of modeling seems to add greater power to the kiln god. He should not be

touched until the firing is over and the kiln is ready to open. His power is good for only this one firing and he must be replaced before the next glaze kiln. After he has served his function, he can be disposed of or. better yet, fired in the next bisque and then put in his place along with the other fired kiln gods. From the time the kiln is turned off until it has cooled sufficiently to open is a long wait for most potters. The kiln is filled with the tangible evidence of the potter's hard work and the pots are at the mercy of the intense heat. What a help to have a kiln god guarding one's efforts!

I haven't vet determined what kind of kiln god produces a good firing. or which is responsible for the bad accident. Maybe it's the length of the arms or their number which controls the running of the glazes. Perhaps the kiln god with an extended nose works best in producing the "happy accidents." Because of this uncertainty this article might be considered a little premature, but I'm working on this perplexing problem. I'm even available for a Foundation grant to allow me to continue this research. What a boon to the potter if the specific structuring of a kiln god could be isolated so as to produce only good firings!

Continued on Next Page



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Kiln Gods

Continued .

The use of kiln gods is not a new idea with me or with any contemporary potter for that matter. Their obscure origin seems to be hidden in the early history of the Chinese. Many references are found concerning various forms of furnace gods. The most historically-agreeable date for the first offering made to the Prince of the Furnace, Tsao Chun, occurred during the Han dynasty by Emperor Wu Ti (140-36 B.C.). Furnace gods, gods of fire, and kitchen gods took many forms both in China and Japan. There seems to be a parallel in these Oriental deities. It appears that the most universal god is hearth, furnace, or kitchen, sometimes worshipped as specific idols and sometimes (as in Japan) worshipped as deified household objects. These gods appear to be a vague grouping of deities representing the respect of worshipper for the mysteries of the fire. Often the deity becomes the furnace or the hearth itself.

Potters at the present day pay respect to their bellows, another example of a deified object closely associated with the "unpredictable" element, fire. The bellows are allowed one day of rest annually and have offerings made to them. Clay was probably deified because it formed the material for the furnace or the brick cooking range. and therefore was deserving of gratitude for its service in restraining the unruly fire. This should not be confused with the potter's clay which was also deified Hani-yasu or "clay easy," the latter adjective referring to its plastic quality. In a niche above the hearth in Japan are still often found single deities, married couples or as many as eight co-existing furnace gods, usually made of paper. These figures invariably are grotesque. They have no myth connected with them and seem to have no specifically defined power or function. Yet they have been worshipped in the Mikado's palace and in the peasant's home.

From this maze of interrelated and multiple-functioning furnace gods there certainly must be a specific kiln god for the potter. Maybe it's only our own unconscious memory of past idols which make kiln gods enjoyable. Or perhaps it's our unwillingness to take the full responsibility for the kiln accident in a process seemingly controlled by natural elements. In any event, try one when next you fire!

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Films on Ceramics

Continued from Page 27

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McGraw-Hill Book Company, Inc. **Text-Film Department** 330 W. 42nd St. New York 36, N. Y.

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The film begins with rolling a piece of clay between the hands to make a ball, then shows how to form this into a variety of useful shapes-a teacup, saucer, cream pitcher, sugar bowl, and several decorative bowls. For elementary school art education. 11 minutes; rental; \$60 purchase.

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HANIWA HORSE

Clay sculpture from Japan

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LENGTH: 34 inches

PRESENT

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Gift of Robert Allerton

THE HANIWA were decorated clay cylinders that were placed around burial monuments of emperors and powerful lords in feudal Japan. Sometimes these cylinders were made in the shapes of houses, human figures, roosters and horses.

The horse pictured here is almost like a large toy. Because it is so large, it probably was made for a very important person. This animal is fully harnessed and saddled, ready to serve his master. The elaborate trappings, with clay rivets at the strap crossings and rein bells in front and back, give us an interesting glimpse of native traditions in early Japan.

It is a tribute to the ability of the unknown artist who made this figure that he was able to give it a mood and a spirit that still appeal to us today.

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CERAMICS MONTHLY 4175 N. High St. Columbus 14, Ohio

CeramActivities

Continued from Page 33

MODEL SOUVENIR SHOP

Craft articles in abundance were the outstanding feature of a new idea in souvenir shops exhibited this summer at the New York State Fair, Syracuse, by the Woman's Program of the State Commerce Department. "Take-Home Treasures" was the name of the shop-and also just what the Woman's Program believed souvenirs should be.

"Our shop was based on the idea that craft articles are . . . delightful and useful souvenir items truly representative of the State," Miss Guin Hall, Woman's Program head, explained. "Too many souvenir items now available to travelers are shoddy and meaningless articles sold from New York to California; good craft articles, or the other hand, typical of New York, would be permanent and cherished mementos," she believes.

Handcrafts of all categories were displayed in the "Take-Home Treasures" shop: ceramics, woodware, jewelry, weaving, and leather gathered by the Woman's Program staff. Other examples of souvenirs were obtained from N.Y.S. industries - Corning cookware and Steuben Crystal, Revere copper and steel serving and cookware, Syracuse china, and Oneida Community silver and pewter.

Distributed free at the exhibit was a new Woman's Program booklet telling how to start and operate a "Take-Home Treasures" shop. Miss Hall says the booklet also contains a wealth of ideas for potential shop owners and craftsmen who would like to develop similar "Take-Home Treasures" to sell. She emphasized that New York is "rich agriculturally, historically, architecturally-and, most of all, in the inventiveness of its people," and pointed out that this forms "an inexhaustible inine of ideas and motifs for craft articles truly indigenous to New York."

The Woman's Program of the State Commerce Department was established in 1945 as a free business advisory service for New York women and has offices at 112 State Street, Albany, and 230 Park Avenue, New York City. Miss Hall is Deputy Commerce Commissioner in charge of the Woman's Program, and Miss Jane H. Todd, its former head, is Special Program Consultant.

OHIO SHOW POSTPONED

Ruth Hendricks, publicity director for the Ceramic Guild of Greater Cleveland, writes that the annual show planned for October has been postponed until March 29, 30 and April 1, 1962. For information about this show, write Mrs. R. W. Hendricks, 16348 Drake Rd., Strongsville 36,

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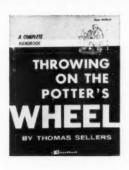
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